

IN THE CLAIMS:

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Please cancel claims 9 and 14-22 without prejudice or disclaimer.

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1. (Amended) A method for fabricating a silicide for a semiconductor device, said method comprising:

depositing a metal containing silicon or an alloy thereof on a silicon substrate;
reacting said metal containing silicon or said alloy to form a first silicide phase;
etching any unreacted metal containing silicon or alloy;
depositing a silicon cap layer over said first silicide phase;
reacting the silicon cap layer to form a second silicide phase, for said semiconductor device; and
etching any unreacted silicon.

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4. (Amended) A method for fabricating a silicide for a silicon region, said method comprising:

depositing a metal containing silicon or an alloy thereof on a bulk silicon substrate;
reacting said metal containing silicon or said alloy to form a first silicide phase;
etching any unreacted metal containing silicon or alloy;
depositing a silicon cap layer over said first silicide phase;
reacting the silicon cap layer to form a second silicide phase; and
etching any unreacted silicon.

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5. (Amended) The method of claim 4, wherein said depositing of said metal containing silicon comprises performing a blanket deposition of a metal comprising one of Co and Ti.

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8. (Amended) The method of claim 4, wherein said reacting of said metal comprises performing a first rapid thermal anneal (RTA) to form a metal-silicon phase, such that the deposited metal containing silicon with the underlay Si, converts some of the Si into metal-Si,
wherein said etching comprises selectively etching any unreacted metal, thereby leaving the metal-silicon regions intact,
wherein said depositing comprises performing a blanket deposition of a silicon film, and
wherein said reacting of said silicon cap comprises performing a second RTA to form a metal di-silicide.

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10. (Amended) A method for fabricating a silicide for a silicon region, said method comprising:
depositing a metal or an alloy thereof on a bulk silicon substrate;
reacting said metal or said alloy to form a first silicide phase;
etching any unreacted metal or alloy;
depositing a silicon cap layer over said first silicide phase;
reacting the silicon cap layer to form a second silicide phase; and
etching any unreacted silicon,
wherein said metal is co-deposited with silicon.

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13. (Amended) A method for fabricating a silicide, said method comprising:
- providing a substrate having a silicon layer;
 - depositing a metal containing silicon or an alloy over said silicon layer;
 - reacting said metal containing silicon or said alloy to form a first silicide phase;
 - etching any unreacted metal containing silicon or alloy; and
 - depositing a silicon cap layer over said metal containing silicon or said alloy;
 - reacting the silicon cap layer, to form a second silicide phase; and
 - etching any unreacted silicon.

Please add the following new claims:

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--23. The method of claim 1, wherein said first silicide phase comprises the first forming silicide phase.

24. The method of claim 4, wherein said first silicide phase comprises the first forming silicide phase.

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25. A method for fabricating a silicide for a semiconductor device, said method comprising:

- depositing a metal or an alloy thereof on a silicon substrate;
- reacting said metal or said alloy to form a first forming silicide phase;
- etching any unreacted metal or alloy;